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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,600

02/05/2007

Olaf Gawer

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5326

23405

7590

10/20/2010

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EXAMINER

MCDONALD, RODNEY GLENN

ART UNIT

PAPER NUMBER

1724

MAIL DATE

DELIVERY MODE

10/20/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,600	Applicant(s) GAWER ET AL.	
	Examiner Rodney G. McDonald	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 8-10 is indefinite because it is unclear whether the phrase "the drive plane being arranged in such a manner that in the sputter-up-variant, an underside of a magnetron body containing the magnetron lies above the drive plane" is meant to further limit the claim because at line 4 in the claim the sputter-up-variant appears to be just an option because of the phrase "and/or". The claim will be interpreted to not have to include a sputter-up-variant since "or" makes it an option.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison, Jr. (U.S. Pat. 4,303,489) in view of Hartig et al. (U.S. Pat. 5,382,126).

Regarding claim 1, Morrison, Jr. teach a vacuum coating system for coating elongate substrates, the coating system having one coating second and at least one

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magnetron in an arrangement as a sputter-down-variant above the substrate, the variant having a target surface opposite an upper side of the substrate. A transport device wherein the transport device is arranged in a divided manner in a drive plane (i.e. plane dividing rollers or plane where the motor is) and on a transport plane (i.e. plane where substrates 20', 20", 20''' sit). (Fig. 7; Column 4 lines 38-52; Column 4 lines 62-68; This rejection is made based on the interpretation claim 1 where the sputter down variation is selected. This is discussed in the 112 2nd paragraph rejection above.)

Regarding claim 4, Morrison, Jr. teach drive elements of drive plane are encased by a casing which acts as flow resistance. (Fig. 7)

Regarding claim 7, Morrison, Jr. teach a connection for power transmission from the drive plane to the transport plane arranged only in the coating section. (Fig. 7)

The difference between Morrison, Jr. and the present claims is that the pump section is not discussed (Claim 1), and the transport elements being disconnected from the drive system and removed without impairing transmission of drive power to the substrate is not discussed (Claim 2).

Regarding the pump section (Claim 1), Hartig et al. teach providing pump sections between coating sections. (See Figs. 6a-6e; Column 4 lines 44-68; Column 5 lines 1-20)

Regarding Claim 2, Hartig et al. teach plural rollers which would be removable so that the substrate could continue to move. (Column 2 lines 55-57)

The motivation for utilizing the features of Hartig et al. is that it allows for coating the substrate with high purity. (Column 2 lines 24-33)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Morrison, Jr. by utilizing the features of Hartig et al. because it allows for coating the substrate with high purity.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison, Jr. in view of Hartig et al. as applied to claims 1, 2, 4 and 7 above, and further in view of Hartig (US PG PUB 2004/0163945 A1).

The difference not yet discussed is that the magnetron being connected to fastening elements that laterally extend from a top of the vacuum coating system alongside the substrate as far as the magnetron body is not discussed.

Regarding claim 3, Hartig '945 teach in Fig. 3 supporting the magnetron from fastening elements laterally extending from a top of the vacuum coating system alongside the substrate. (See Fig. 3)

The motivation for utilizing the features of Hartig '945 is that it allows for rotating the cathode. (Paragraph 0070-0072)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the features of Hartig because it allows for rotating the cathode.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison, Jr. in view of Hartig et al. as applied to claims 1, 2, 4 and 7 above, and further in view of Szczyrbowski et al. (U.S. Pat. 6,168,698), Bjornard et al. (U.S. Pat. 5,489,369) and Ishii et al. (U.S. Pat. 4,949,669).

The differences not yet discussed is that mutually corresponding suction openings being arranged in a coating section and a pump section above and below the transport plane is not discussed (Claim 5) and a vacuum pump arranged below the transport plane in a pump section is not discussed (Claim 6).

Regarding claim 5, Szczyrkowski et al. teach providing coating sections and pump sections. The pump section contains pump openings above the transport plane. (See Figs. 1, 2; Column 4 lines 30-37) Bjornard et al. teach providing suction openings above and below the transport plane. (Column 6 lines 7-20; Column 8 lines 64-68) Ishii et al. teach providing exhaust above and below the transport plane. (Column 5 lines 3-22)

The motivation for utilizing the features of Szczyrkowski et al. is that it allows for operating different coating zones with different gases. (Column 3 lines 56-63)

The motivation for utilizing the features of Bjornard et al. is that it allows for minimizing contaminants from the deposition environment. (See Abstract)

The motivation for utilizing the features of Ishii et al. is that it allows for controlling process gas distribution. (Column 1 lines 60-66)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the features of Szczyrkowski et al., Bjornard et al. and Ishii et al. because it allows for operating different coating zones with different gases, minimizing contaminants from the deposition environment and controlling process gas distribution.

Response to Arguments

Applicant's arguments filed August 9, 2010 have been fully considered.

Applicant has perfected priority and therefore Hartig (US PGPUB 2006/0048708) has been withdrawn. New rejections are given above. The Examiner awaits Applicant's response.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M-F with limited availability on Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rodney G. McDonald/
Primary Examiner, Art Unit 1724

Rodney G. McDonald
Primary Examiner
Art Unit 1724

RM
October 18, 2010

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